

### REMARKS

Favorable reconsideration of this application is respectfully requested.

Claims 1, 4-12, and 15-22 are pending in this application. In the Office Action claims 1, 4-12, and 15-17 were indicated as directed to an invention that lacks the same or corresponding special technical feature from the invention originally claimed, and thus were withdrawn from consideration. Claim 18 was rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. 2005/0116547 to Lin et al. (herein "Lin") in view of U.S. 5,115,386 to Shirahama et al. (herein "Shirahama") and U.S. 2004/0066094 to Suzuki et al. (herein "Suzuki"). Claims 20-22 are allowed. Claim 19 was objected to as dependent upon a rejected base claim, but was noted as allowable if rewritten in independent form to include all of the limitations of its base claim and any intervening claims.

Applicants gratefully acknowledge the indication of allowance of claims 20-22 and of the allowable subject matter of claim 19. With respect to that indication of the allowable subject in claim 19, claim 19 is herein amended to be rewritten in independent form. Therefore, claim 19 is also now believed to be allowable.

Addressing first the withdrawal of claims 1, 4-12, and 15-17, applicants submit that position is improper and those claims should be reinstated and fully considered.

In withdrawing claims 1, 4-12, and 15-17 the Office Action states:

Newly amended claim 1 is directed to an invention that lacks the same or corresponding special technical feature from the invention originally claimed for the following reasons:

The special technical feature of claim 1 (as illustrated in Figure 7) is the particular configuration and connection of the converters (4 and 5) between the AC source (1) and load (2). Here, in newly amended claim 1, the first single phase inverter or rectifier is NOT connected in parallel with the series connection of the power source and the straightforward switch (3), as was previously claimed before the amendment.

The special technical feature of independent claims 18, 20 and 21 is the particular and different configuration (as

shown in Figure 1) and connection of the converters (4 and 5) between the AC source (1) and load (2) and particularly, the first single phase inverter or rectifier connected in parallel with the series connection of the power source and the straightforward switch.

Applicants submit the above-noted grounds for rejection is improper. Applicants submit the features recited in claim 1 clearly read on for example Figure 1. Applicants submit as the claims read on the same Figure 1, the withdrawal of claims 1, 4-12, and 15-17 is improper.

In further detail, claim 1 recites, as shown in Figure 1, a straightforward switch 3, a first single phase inverter or rectifier 4 in parallel with a load 2, a second single phase inverter or rectifier 5 in series with the load 2, and a battery 8. Each feature in claim 1 clearly reads on Figure 1.

Applicants also note the above-noted grounds for rejection indicating in claim 1 the first single phase inverter or rectifier is not connected in parallel with the series connection of the power source and the straightforward switch is unclear. Claim 1 specifically recites “a straightforward switch connected in series between a power source and a load”, and claim 1 was previously amended to recite the single phase inverter or rectifier connected in parallel with the load, but that load is in series with the straightforward switch and the power source. The Office Action appears to be misinterpreting certain claim features and Figure 1.

In view of the foregoing comments applicants submit claim 1 reads on Figure 1, in contrast to the position in the Office Action. Thereby, applicants submit the withdrawal of claims 1, 4-12, and 15-17 is improper and those claims are to be reinstated and fully considered on their merits.

Addressing now the rejection of claim 18 under 35 U.S.C. § 103(a) as unpatentable over Lin in view of Shirahama and Suzuki, that rejection is traversed as now discussed.

Independent claim 18 is herein amended to clarify features recited therein.

Independent claim 18 specifically recites each of the first and second single phase inverters or rectifiers “including alternating current (AC) side terminals and direct current (DC) side terminals”, and further reciting the first single phase inverter or rectifier “with its AC side terminals connected to the load and the second single phase inverter rectifier “with its AC side terminals connected to the load”. Applicants submit at least such claimed features clearly distinguish over the applied art.

With respect to features of the first and second single phase inverters or rectifiers the outstanding Office Action cites Lin for example in Figure 2, and elements 11, 12 as the first single phase inverter or rectifier and elements 21, 22 as the second single phase inverter or rectifier.<sup>1</sup>

In reply to that grounds for the rejection applicants first submit Lin does not disclose or suggest those elements 11, 12, 21, and 22 each including both alternating current AC side terminals and direct current DC side terminals, and particularly such that each of the rectifiers 11, 12, 21, and 22 have their AC side terminals connected to the load.

Applicants also note element 40 in Lin is not even a load but instead is another switch. In Lin a load (not shown) is supplied a current from an input AC voltage through a parallel circuit including a by-pass switch 43 and two current conversion units 10, 20, and current conversion units 10, 20 are formed by a series and cross-connection of rectifiers 11, 12, and inverters 12, 22. The objective of the device of Lin is that when either one of the rectifiers 11, 21 and/or the inverters 12, 22 fails as a result of a malfunction, the power system still operates normally and outputs the current to the load to the other one of the rectifiers 11, 21 and/or the inverters 12, 22.

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<sup>1</sup> Office Action of July 22, 2010, bottom of page 4.

Moreover, the basis for the rejection in citing Lin to meet the claimed features indicates that in Lin if elements 21 and 12 fail, then first and second inverters or rectifiers 11, 22 are converted in series with element 11 feeding element 22.<sup>2</sup> Applicants submit with such a series connection of elements 11 and 22, such elements would **not** both have AC side terminals connected to a load. Particularly in that case the terminals of elements 11 and 22 that are not connected to each other would be connected to opposite sides of the circuit, the other terminal of element 11 being connected to the input AC voltage and the other terminal of the element 22 being connected to the STS 40. Such connections do not correspond to the claimed features.

Thereby, applicants submit Lin does not disclose the claimed structure as to each of the first and second phase inverters or rectifiers having their AC side terminals connected to the load, in combination with the other claimed features.

Further, no disclosures in Shirahama or Suzuki were cited with respect to the above-noted features, and no disclosures in Shirahama or Suzuki are believed to cure the above-noted deficiencies in Lin.

Applicants also note independent claim 1 is similarly amended as in claim 18, and thereby amended independent claim 1, and the claims dependent therefrom, are also allowable over the applied art.

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<sup>2</sup> Office Action of July 22, 2010, middle of page 5.

As no other issues are pending in this application, it is respectfully submitted this application is in condition for allowance, and it is hereby respectfully requested that this case be passed to issue.

Respectfully submitted,

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